Draft Wildlife and Vegetation Resources Study Plan

Blue Lake Hydroelectric Project, FERC No. 2230

Prepared by:

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INTRODUCTION

The City and Borough ("City"), is in the process of obtaining a new license for their Blue Lake hydroelectric project ("Project" FERC No. 2230). Prior to relicensing, the City must submit to the Federal Energy Regulatory Commission (FERC), information on natural resources potentially affected by the relicensing action. The FERC will use that information in various impact evaluation and other decision documents.

This Draft Wildlife and Vegetation Study Plan is one of several plans developed by the City as part of the required 3-Stage relicensing consultation process. The Plan will be reviewed by Alaska resource agency specialists and revised according to their comments.

In November and December, 2002, the City distributed an Initial Consultation Document (ICD), held agency and public meetings and conducted a site visit. In response to the meetings and the ICD, certain Alaska resource agencies submitted requests for environmental studies. Study requests pertaining to wildlife and vegetation resources were received from Alaska Department of the Fish and Game (ADF&G), US Forest Service (USFS) and US Fish and Wildlife Service (FWS). This draft plan generally addresses the study requests from these agencies, with certain exceptions.

PROPOSED WILDLIFE and VEGETATION STUDIES

Because the City is not proposing any structural changes to the project, (particularly with respect to raising the dam and subsequent elevation of the reservoir) no additional terrestrial areas will be affected by the relicensing. Therefore, the following proposed studies may differ from agency requests in those areas which might have been affected by raising the dam.

In the following, the term "researcher(s)" refers to contractors hired by the City and approved by agencies, or to teams of researchers which might variously include contractors, City and agency personnel.

Literature and Available Information Review

Researchers will conduct a literature review to help develop a complete list of wildlife species known or thought to use the project area. The City will assemble existing wildlife information in the Blue Lake and Sawmill Creek drainage pertaining to large and small mammals, fur-bearers, waterfowl (including harlequin ducks), shorebirds, bald eagles, and other raptors. Much of the information is part of the existing Blue Lake licensing or amendment data base.

In addition to written material, researchers will interview resource agency personnel from ADF&G, USFS, FWS, Sitka Tribe of Alaska (STA) members and others who might have personal knowledge of wildlife in the Project area.

Finally, researchers will establish communications protocols with resource agencies to receive all appropriate and available survey information which those agencies may have collected through resource inventories, aerial overflights, harvest records and other agency-funded or otherwise enabled studies.

Sawmill Creek and Blue Lake Field Surveys.

Seasonal field surveys will be conducted to describe 1) the current distribution and relative abundance of wildlife species and their spatial and temporal use patterns of terrestrial and aquatic habitats within riparian zones, including Blue Lake tributary deltas, and 2) general vegetation and habitat type within the same area

Wildlife

Wildlife data will be obtained primarily through observations and captures, which will be done in three separate ways:

Foot surveys. Foot surveys will be used to observe wildlife and vegetation while walking within the survey area. Generally, foot surveys will be done in association with fisheries surveys which will be conducted frequently and within viewing range of most of the Project's potentially-affected area. Foot surveys will be done primarily along Sawmill Creek, but to a lesser extent in selected areas around Blue Lake.

Boat Surveys. Boat surveys will be used along the shoreline of Blue Lake, and, as with Sawmill Creek foot surveys, will be conducted primarily by fisheries researchers on their routine trips to the lake area.

In both foot and boat surveys, researchers will note:

- Species or sign;
- Estimated age or life stage of fauna sighted;
- Movement patterns, if observed;
- Indications of re-sighting (was animal or bird sighted before, based on identifying marks?);
- Evidence of life-history activity, such as denning, kidding, nesting, feeding, rearing, etc.

Both foot and boat survey observations will be documented, to the extent possible, using Global Positioning System (GPS) equipment, and will be noted on Project area base maps to be produced by the City.

These surveys will also be a primary source of information on existence of threatened or endangered (T&E) species (Section Endangered Species section, below). Any initial reports of T&E species will prompt discussions with FWS to determine if additional study effort is needed to adequately confirm sightings.

Small Mammal Trapping. A limited small mammal trapping effort will be used within the riparian zones of Sawmill Creek and Blue Lake. Researchers will work with wildlife specialists from ADF&G, USFS and FWS to determine approved trapping types and techniques, trap placements and seasons when trapping will occur. A separate methods document will be prepared for small mammal trapping specifying approved trap locations, equipment, techniques and timeframes.

Raptor Protection. The City will survey the Project overhead transmission lines to determine their potential to electrocute birds or present in-flight risks. A special report will evaluated whether Project transmission equipment designs are consistent with the specifications contained in *Suggested Practices for Raptor Protection on Power Lines - The State of the Art in 1996* by Avian Power line Interaction Committee (APLIC) *and Mitigating Bird Collisions with Power Lines: The State of the Art in 1994* by APLIC.

Vegetation.

Using aerial photos as a primary data source, the City will survey and document riparian vegetation community composition, including estimates of relative percent cover of dominant species (e.g. willow, alder, cottonwood, sedges, forbs, grasses). Aerial imagery will be ground-truthed in accessible areas.

To the extent possible using photos and ground observations, the City will also document important plant communities within shallow littoral zones (e.g. aquatic macrophytes) that are utilized by terrestrial and aquatic species, including furbearers and birds.

The City intends to conduct aerial photography of the project area as part of a larger City-sponsored aerial imagery survey in 2003. Imagery and maps from this survey will serve as base data for both all environmental field surveys done for the Project relicensing and later monitoring surveys.

Study Area.

All wildlife field surveys (those requiring researchers to observe flora or fauna in the field) will be conducted within a zone of potential wildlife impacts, defined during consultation as the area within which wildlife might be affected either by Project operations or by Project-related human activity.

Because of very dense vegetation and restricted movement along both the Sawmill Creek band and the Blue Lake shoreline, Study Areas will be determined in the field based on accessibility and safety concerns. Generally, most wildlife in such areas travel near the stream or lake bank, assuring that surveys done by fisheries researchers will document most of the potentially-impacted species. Around Blue Lake, the study area will also include slopes above the reservoir which may be observed using binoculars or a spotting scope.

The area to be depicted using aerial imagery will extend to the rim of the Blue Lake basin as defined on topographic maps. More detailed vegetation typing and cover analysis will only be done in those areas potentially-affected by project operations or operation-associated human activity. These two area types will be determined during consultation.

Study Timeframe

Wildlife studies will continue for the duration of the prefiling period. Wildlife surveys will be done at various times depending on the technique, as described below:

Foot Surveys.

Foot survey time periods will be limited by access to the areas within the Sawmill Creek Study Area. Generally, this will define a survey season between late March and late December, but snow pack and access conditions vary greatly among years. Because wildlife foot surveys will be associated with fisheries foot surveys, whenever the stream was accessible for fish foot surveys, associated wildlife surveys will be performed by the same researcher.

Foot surveys will, as a result of association with fish surveys, be done on about a weekly basis throughout the accessible period.

Boat Surveys.

As with foot surveys, access to Blue Lake will be the controlling factor in boat surveys. Access to Blue Lake by boat is generally possible from mid-April through mid-December, roughly the same period as for Sawmill Creek.

Boat surveys will be done at least twice per year, and more often if fisheries researches were required to visit the lake more frequently.

Small Mammal Trapping.

Trapping will occur about three times each year during the period when access was available, and small mammals were expected to be active. This will generally require a trapping effort in the spring, summer and fall, beginning in April and ending in December, each year.

ENDANGERED SPECIES

To assure early determinations of whether endangered species occur in the Project area, the City will consult during the early phases of wildlife and vegetation studies with USFS and FWS. As noted above, the initial and ongoing reviews of existing information will note all references to endangered species. In consultation with FWS and USFS, the City will formally request comment on endangered species occurrence in the Sawmill Creek and Blue Lake Study Areas and in a larger geographic area to be determined during

consultation. Annual survey reports will have sections on endangered species sightings, if any.

The objective of the endangered species activities will be to have completed all endangered species reviews and surveys prior to submission of the Draft License Application for agency and public review.

REPORTING

Wildlife and vegetation studies will be done on a calendar year basis, with studies for each year commencing on or about January 1 and ending December 31. A draft report documenting the annual wildlife and vegetation surveys will be distributed on or before March 1 of the following year with a 45-day review period. The City will ask for review primarily to allow agencies to familiarize themselves with methods and results of the yearly studies, and to comment on proposed Study Plan Revisions for the following year. The City will convene an annual meeting or conference call to discuss agency recommendations for Plan revisions, as soon as possible after yearly report review to facilitate incorporating changes in time for spring surveys.

The annual reports will contain the following sections:

- **Introduction.** This section should be brief, describing need for surveys within the context of FERC relicensing and data needs of the participating agencies;

- **Methods.** In this section, the author(s) will describe observation methods, including sites, dates, observations recorded (wildlife numbers and species, weather, etc, as described above) identification keys used and other items;

- **Results.** Authors will describe the results of the foot and boat surveys and other recorded data. Study Area base maps will be used to the extent possible to identify wildlife locations from the foot and boat surveys, noting habitat utilization and life history activities.

  A separate Results section will be devoted to T&E and sensitive species. In coordination with ADF&G, USFS and FWS, the City will compile and add to a list of potentially-affected sensitive species in addition to T&E species noted by FWS. If any sensitive species are sighted, the significance of the observation will be reported each year in the report, and further documented to the above wildlife agencies via separate written report.

- **Discussion.** This section may be brief in these pre-consultation studies, and limited to general discussions of species present, timing and habitat utilization, as they relate to other areas in Southeast Alaska, and to any previous data collected in the Sawmill Creek and Blue Lake areas. More intensive interpretation of these data in terms of species importance, impacts

and mitigation measures will be done as part of development of the relicensing NEPA documents.

- **Recommendations.** This section will focus on evaluation of previous years' studies and ways in which they might be improved. In successive years, this section will be used to evaluate effectiveness of changes and the extent to which proposals have been achieved.

- **Impact and Mitigation Evaluations.** As possible each year, reports will address existing project effects on wildlife and vegetation. As appropriate, reports, particularly in the later relicensing study years, may address proposed changes in project operation, or effects of mitigation proposals which arise during the relicensing process. Mitigation measures may be either on- or off-site, as determined during consultation.

ANNUAL MEETING

An annual meeting will be held each year following review of the annual wildlife and vegetation reports. If possible, the meeting time will coincide with that of a similar meeting proposed for the Fisheries Study Plan. The objective of the meeting will be to discuss results of the previous years' surveys and revise the survey methods to address problems encountered. After the report review and meeting, the City will provide draft meeting minutes for review, and, following finalization of the minutes, the Study Plan for both the Blue Lake and Sawmill Creek wildlife and vegetation surveys will be revised and reissued as necessary.